

*Testimony to the Senate Energy and Technology Committee
In Support of House Bills 4265 and 4266
By Granger*

Chairman Nofs and committee members, I would like to thank you for your consideration of House Bills 4265 and 4266 to *increase* renewable energy production in landfills from Michigan's waste resources. My name is Tonia Olson. I serve as director of governmental and community relations for Granger.

Granger is a third-generation, family-owned, Lansing-based business. Our more than 220 associates collect tomorrow's energy. We provide waste hauling, disposal and recycling services and operate two landfills, a recycling center, and a compost facility and produce renewable energy from landfill gas.

In 1985, we were the first in Michigan to develop and implement a commercial scale landfill gas project. Today we operate 16 projects in six states. Our eight Michigan projects have a current combined capacity of slightly more than 40 megawatts or enough electricity to power more than 24,000 average-sized homes.

Landfill gas forms from the decomposition of organic matter in a landfill. Within months of waste being placed, landfill gas can be collected and processed, and used as an alternative to natural gas in many applications. Landfill gas as a renewable energy source is desirable because it is considered base load power, available 24/7/365, and it can continue to be harvested for 20 to 30 years after a landfill closes.

House Bill 4265 and 4266 propose to allow yard clippings in landfills that recover and utilize the gas produced as a source of energy for generation of electricity, a direct fuel source, or any other substitute for conventional fuels. Michigan landfill resources provide environmental benefits and protection. The addition of yard clippings will improve gas production and stability of the waste pile.

Yard clippings, the waste from yard maintenance, leaves, grass, and tree trimmings less than four feet in length and two inches in diameter, were banned from Michigan landfills in 1995. Thanks to advances in landfill management and landfill gas-to-energy technology, we now have an additional option for the management of this material. The reasons for the original ban, to conserve space and promote recycling, can be addressed by a landfill utilizing yard clippings for energy production—a new form of recycling.

Michigan landfills are subject to numerous reporting and compliance regulations at the state and federal level.¹ This oversight provides protection of air quality, but does not prescribe how management is facilitated. The investment of converting landfill gas to an energy use is a costly, voluntary measure. House Bills 4265 and 4266 raise the bar for management of our Michigan landfill assets—to not only provide a requirement to capture the gas but also put it to a productive use.

The environmental benefits of landfill gas projects are real. According to the Environmental Protection Agency (EPA), for every 3 megawatts generated, enough energy is produced to power 1,900 average-sized homes. From the addition of yard waste alone, the average increased generation per landfill facility would be 2.2 megawatts² at peak—or power for nearly 1,400 households. Again, this is (on average) per facility, simply from the addition of yard waste.

Certainly the significance of this renewable energy source can be argued based on the comparison applied. To demonstrate the importance landfill gas projects can make, I would reference our partnership with the Lansing

¹ The Michigan Air Emissions Reporting System (MAERS) subjects landfills to requirements to calculate and pay for emissions from the operations and ancillary sources. Landfills are subject to Part 55, Air Pollution Control, of the Natural Resources Environmental Protection Act (NREPA), PA 451 of 1994. This includes the Federal New Source Performance Standards (NSPS), Permit to Install (PTI), and Prevention of Significant Deterioration (PSD) rules. Michigan landfills are subject to control gas odors from migrating off-site, and to have a Renewable Operating Permit. Finally, landfills are required to report GHG emissions from their landfill and ancillary operations to the Environmental Protection Agency (EPA).

² Examining Increased Renewable Energy Production from Landfill Gas in Michigan, June 2007 (with January 2008 addendum)

Board of Water and Light (LBWL). Granger's two Lansing area landfills transmit electricity to LBWL. Specifically, we provide 11.2 megawatts of capacity to power more than 10,000 average-sided homes in our capital city. This electricity amounts to more than 5 percent of the Board of Water and Light's retail sales. This is significant.

The intent of this legislation is to have a positive impact on renewable energy production—deemed a priority under P.A. 295. An additional benefit is local investment and jobs.

According to the Environmental Protection Agency³, a typical 3 megawatt landfill gas electric project is estimated, during the construction period, to add more than \$1.5 million in new project expenditures and directly create at least five jobs. The state-wide ripple effect will increase economic output by \$4.3 million and employ 20-26 people. (This is for just 3 megawatts of power. The average megawatt production from current active projects in the state is about 10 megawatts.)

It is likely you will be asked to compare job creation from landfilling material versus composting it. However, there are no reliable studies comparing job creation from composting with job creation from landfill gas projects. The studies that do exist compare recycling with traditional landfilling. While these studies show greater job creation through recycling, they do not take into account the job creation effects of development and operation of landfill gas projects—projects that create family-sustaining jobs for engineers, skilled trades, system operators, equipment suppliers, and consultants from initial development through ongoing management, as well as ancillary jobs for professional drivers and landfill operating engineers who haul and handle the landfill gas-generating trash.

Composting in Michigan has been described as a developing industry. From the list of registered compost facilities⁴, it appears that more than 70 of the sites are municipally operated, five are affiliated with landfill companies, and approximately 40 are private, commercial operations.

We understand the concerns of the composters. However, the conditions of the bills and the market do not project the outcomes they predict. Nationally, a majority of states (27) do not ban yard clippings from landfills. Compost businesses are viable in states without yard clipping bans. For example, California has no ban, but nearly 170 compost facilities.

Compost facilities will have the opportunity to maintain their raw material stream as the legislation requires yard clippings to be maintained segregated from other waste at the source of generation. With this provision, the role for the generator (homeowner) does not change. They will not need to be educated (or re-educated) based on the final disposition of the material. And either process (landfill gas-to-energy or composting) will have equal access to the yard clippings to make renewable energy or the nutrient rich soil amendment we all know as finished compost.

Understanding that a one-size fits all approach is not our only option, this legislation promotes the opportunity for choice of management of yard clippings as dirt or power.

There are economic and environmental benefits to both handling options. There are also economic and environmental challenges to both handling options. The reality is that landfills are equally capable of responsibly processing yard clippings into a beneficial product. As a compost operator and landfill gas developer, we believe these management practices can successfully co-exist.

We encourage your support of House Bills 4265 and 4266 to increase renewable energy production from landfills in Michigan.

³ EPA LMOP, Green Power from Landfill Gas: Helping build a sustainable energy future while improving the environment, December 2010

⁴ List of DNRE Registered Composting Facilities, January 31, 2011